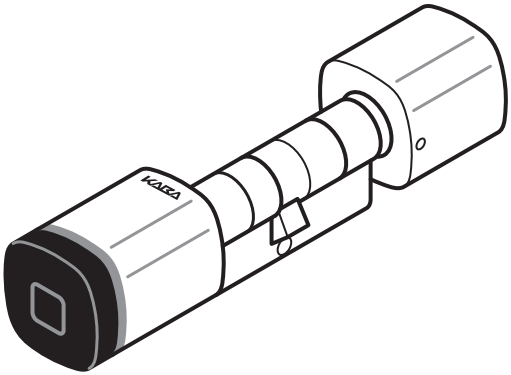

Kaba digital cylinder

User manual

Doc. - No.: k1evo803en-2011-02

EN

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1 About this user manual

1.1 Scope

This user manual describes the Kaba evolo system mechatronic locking cylinder, known as the Kaba digital cylinder.

1.2 Target group

This user manual is aimed at specialist personnel, to enable installation, commissioning and maintenance of this product.

The description presumes that trained specialist personnel are working on the system and does not replace product training.

1.3 Content and purpose

The content of the user manual is limited to installation, programming, operation and maintenance of the Kaba digital cylinder.

1.4 Additional documentation

Please refer to the technical datasheets or the catalogue for Kaba evolo components to obtain technical information and help with planning installations.

Detailed information on programming the Kaba digital cylinder can be found in the user manuals for the Kaba programmer 1460 and the Kaba evolo manager software.

1.5 Indication and warning symbols

The user manual uses the following indication and warning symbols to highlight dangers or particular properties.

Take note of this information on dangers. It helps to avoid accidents and prevent damage.

1.5.1 Dangers to persons

CAUTION

Indicates a potentially dangerous situation that could lead to minor injury.

1.5.2 Dangers to objects

NOTICE

Indicates a potentially harmful situation in which the product or something near it could be damaged.

1.5.3 Other information

Usage indications with supplementary information. These ensure that optimal use is made of the product and its functions.

1.6 Definition of terms

This user manual contains specialist terms and expressions specific to Kaba that are explained in the glossary on page 39.

In order to simplify the user manual for the reader, the mechatronic locking cylinder *Kaba digital cylinder* is referred to as "digital cylinder" for short, and the programming device *Kaba programmer 1460* is referred to as "programmer" for short.

2 Safety and environment

2.1 Proper use

The Digital cylinder is intended for installation in buildings door locks and use in door furniture without a cylinder cover. See Technical data page 10.

2.2 Safety indications for this product

2.2.1 Handling lithium batteries

Risk of explosion

Lithium batteries can explode or burst in a manner similar to an explosion.

Handling lithium batteries in the incorrect manner can lead to fires and explosions.

- They may only be replaced by batteries of the same type.
- Do not open, drill through or squash lithium batteries.
- Do not burn lithium batteries or expose them to high temperatures.
- Do not short circuit lithium batteries.
- Do not recharge lithium batteries.
- Do not connect lithium batteries in parallel.

2.2.2 ESD protective measures for installation

NOTICE

Danger for electronic components due to electrostatic discharge.

The product contains electronic components that are sensitive to electrostatic discharges (ESD). Contact with persons or objects could lead to an electrostatic discharge that could damage or destroy the product. In order to avoid the risk of electrostatic discharge, observe the handling instructions and recommendations in line with EN 100015-1.

Only transport and dispatch disassembled electronics modules in protective covers.

2.2.3 Areas of use

NOTICE

When using with emergency exit locks in accordance with EN 179, or panic door locks in accordance with EN 1125, check the use of a Kaba digital cylinder. Check and install the cylinder, lock, door furniture and assembly accessories as one unit.

Only the "Protected" version of the Kaba digital cylinder has VdS certification, class BZ.

VdS guidelines stipulate that, for doors with burglary-resistant door furniture, the cylinder-bar may not protrude more than 3 mm from the door furniture.

2.3 Disposal

2.3.1 Disposing of packaging

Dispose of packaging in an environmentally-friendly manner
The packaging can be recycled. Please do not dispose of the packaging with household waste, but instead send it for recycling.

2.3.2 Disposing of digital cylinders

Do not dispose of the device with household waste
Dispose of electronic devices and used batteries in accordance with the Ordinance on the Disposal of Used Electrical and Electronic Devices [*Verordnung über die Entsorgung von Elektro- und Elektronik-Altgeräten* - VREG] , via the local collection points for used electronic devices.

3 Product description

This section describes the Digital cylinder.

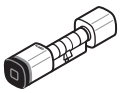
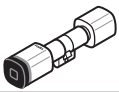
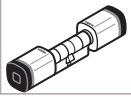
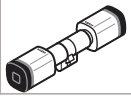
3.1 Scope of delivery

- 1 Kaba digital cylinder
- 1 battery, CR2 lithium type
  (2 batteries for the Dual digital cylinder)
- 1 forend locking stud (M5x75 mm)
- 1 quick start guide

3.2 Additional accessories

- Kaba service tool, item number 1430-25
- Hexagonal screw, hex 1.5 mm, item number 1430-55
- Kaba programmer 1460
- Kaba media
- Kaba evolo manager software

3.3 Types

17 mm profile cylinder		**22 mm round profile**	
1435MID Standard		1535MID Standard	
1434MID Half		1534MID Half	
1439MID Dual		1539MID Dual	

3.4 Technical data

The Digital cylinder (profile cylinder) satisfies the dimensions specified by DIN 18252.

The Digital cylinder (round profile cylinder) satisfies the dimensions specified by SN-EN 1303.

The area of use depends on the type of digital cylinder selected.

Dimensions		
Outer door knob Inner door knob Small inner door knob	d 36 x 45 mm d 36 x 34 mm d 30 x 27 mm	
Electricity supply		
Battery	3 V, CR2 Lithium type	
Environmental conditions		
Protection type	External	IP55
Temperature	- 25 - 70 °C [1)]	
Humidity	0...95%rH, non-condensing	
Corrosion	DIN EN 1670 class 3	
Battery life (at 20° C)	Whitelist	approx. 50,000 cycles* approx. 65,000 cycles**
	CardLink	approx. 40,000 cycles* approx. 50,000 cycles**
Standards/Certificates		
Certificates	Protected version: VdS class BZ (pending) Fire protection doors pursuant to EN 1634-1: T90 (excluded type 1439MID and 1539MID)	
Durability	EN 1303 class 6 >130,000 cycles	

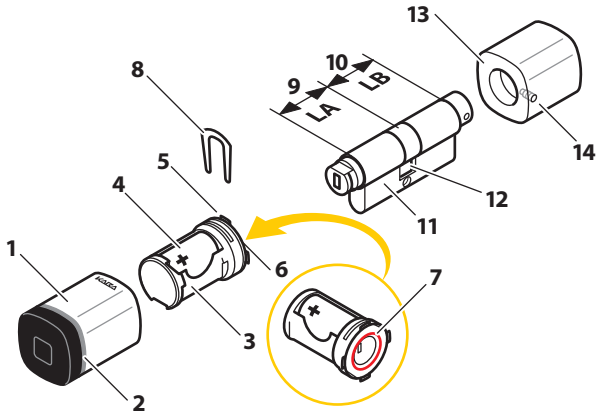
Caption:

[1)] The temperature range depends on the specifications from the battery manufacturer

* with acoustic signal

** without acoustic signal

3.5 Overview of parts

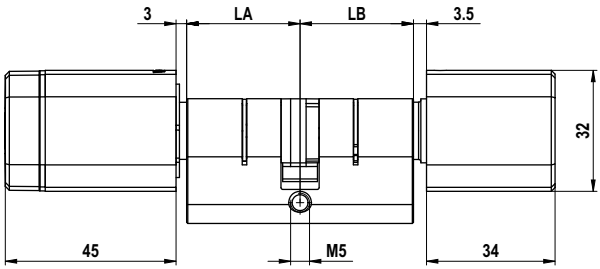


Exploded drawing digital cylinder Standard

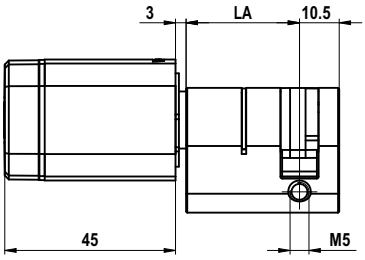
Description for Standard version			
Item		**Item**	
1	Outer door knob	8	Securing shackle
2	Cover with light ring	9	LA, length on outer side
3	Door knob module with reading antenna	10	LB, Length on inner side
4	Battery	11	Cylinder housing
5	Bayonet disc	12	Cam
6	O-ring d 25 x 1 mm	13	Inner door knob
7	O-ring d 15 x 1 mm (red)	14	Hexagonal screw

3.6 Dimensions

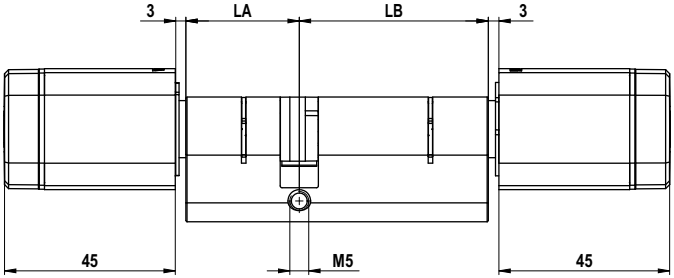
The dimensions stated are also valid for the 22 mm round profile cylinder.



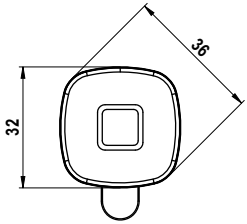
Dimension drawing 1435 Standard (17 mm profile cylinder)



Dimension drawing 1434 Half (17 mm profile cylinder)



Dimension drawing 1439 Dual (17 mm profile cylinder)



Profile of the standard door

With the cylinder lengths, leave a gap of at least 1 mm between the door furniture and the door knob, so that the service tool can be used on the door knob.

4 Operation

This section describes the operation of installed digital cylinders.

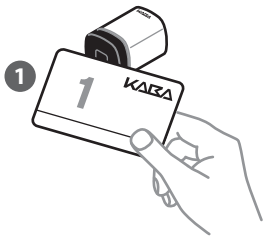
4.1 Using the digital cylinder

The digital cylinders are operated with user media. The user media serve to open or lock the doors. The user media are electronic keys. Each digital cylinder recognises its own user media and only grants access authorisation to these media.

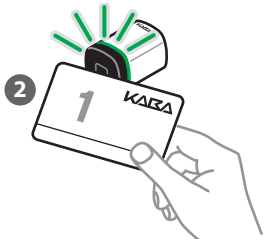
All user media must be programmed with an access authorisation prior to first use.

User media

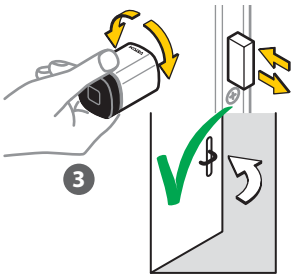
1. Hold an authorised user medium in front of the digital cylinder, as shown.



2. The short acoustic signal (if activated) and the optical green display indicate that access is authorised.



3. Open the lock by turning the door knob.



Doors open and lock differently depending on the type of lock. In principle, a digital cylinder functions in the same manner as a mechanical locking cylinder. In order to lock a door, hold an authorised medium in front of the digital cylinder and close the lock by turning the door knob. This is not necessary with self-locking locks.

4.2 Significance of the operating signals

While user media are held up in front of the digital cylinders, these cylinders emit various acoustic and optical signals.

* The acoustic and optical signals can be activated or deactivated using the programmer. The digital cylinder is supplied with the acoustic signals deactivated and the optical signals activated.

The signals have the following meaning:

Access with user media

	Acoustic signal	**Optical display**
Hold up an authorised medium.	1 x short *	1 x short green*
	The mechatronics unit engages, the lock can be opened or closed.	
Hold up authorised medium.	4 x short	4 x red
	The outer door knob turns without engaging, the lock cannot be opened or closed.	

Access with user media when battery is “low”

	Acoustic signal	Optical display
Hold up an authorised medium.	2 x long, (then 4 second pause)	1 x short green*
	After a 4 second pause, the mechatronics unit engages.	

When the battery is almost empty, the 2 x long acoustic signals and the 4 second pause remind the user to insert a new battery, so that the doors can continue to be opened or closed.

Access with user media when battery is “low”

	Acoustic signal	Optical display
Hold up an authorised medium.	1 x long	off
	The mechatronics unit does not engage!	

The battery is discharged.
Replace the battery!

System monitoring and check that unit has engaged

	Acoustic signal	Optical display
Hold up an authorised medium.	8 x long	8 x short red
	The mechatronics unit does not engage! (See Fault rectification on page 38.)	

5 Installation

This section describes the process of installing the digital cylinders in doors.

Two installation variants are available, with the variant selected depending on the type of digital cylinder, its profile and the type of door furniture (with or without profile cutout).

5.1 Tools required

- Kaba service tool, item number 1430-25
- Hexagonal screw, hex 1.5 mm, item number 1430-55
- Cross-head screwdriver for forend locking stud, size PZ 2

5.2 Installation variants

With installation variant A, remove the inner door knob and push the cylinder through the door furniture and the lock, from the outer side of the door.

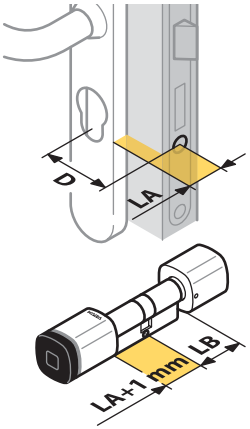
With installation variant B, remove the outer door knob and also the inner door knob if necessary, and push the cylinder-bar through the door's furniture and lock.

	Variants	
Type	**A**	**B**
1435 Standard	recommended	optional
1434 Half	--	optional
1439 Dual	optional	recommended
1535 Standard	optional	recommended
1534 Half	--	optional
1539 Dual	optional	recommended

5.3 Preparatory measures

Check the dimensions

1. Check the door thickness with the door furniture (LA) and the cylinder length.
2. Check the profile cutout and the backset (D).



With the cylinder lengths, leave a gap of at least 1 mm between the door furniture and the door knob, so that the service tool can be used on the door knob.

VdS guidelines stipulate that, for doors with burglary-resistant door furniture, the cylinder-bar may not protrude more than 3 mm from the door furniture.

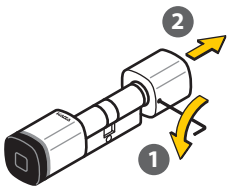
5.4 Installation variant A

NOTICE

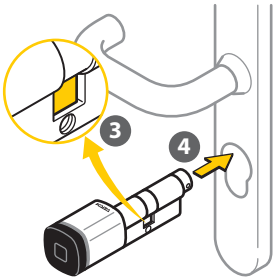
Always install the digital cylinder when the door is open. This prevents lock-out in the case of self-locking locks.

Installation A from the outer side of the door

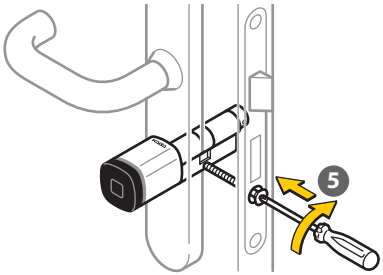
1. Using the hexagonal key, loosen the screw from the inner door knob.
2. Remove the inner door knob.



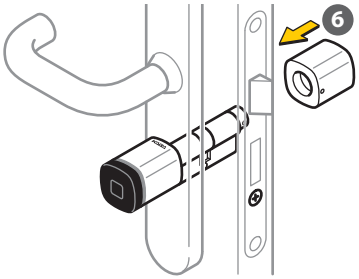
3. Align the cam flush with the cylinder-bar.
4. From the outer side of the door, push the digital cylinder through the door furniture and the lock.



5. Position the forend locking stud in the lock and tighten it slightly.

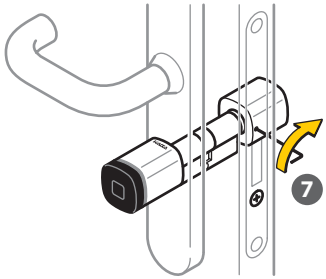


6. Push the inner door knob onto the cylinder housing.

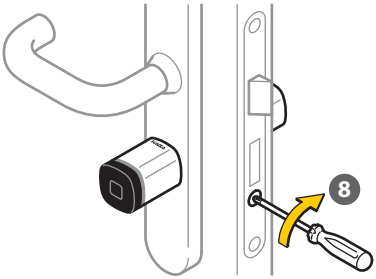


The screw for the inner door knob has a chemical coating to prevent it being lost. This coating ceases to have an effect after the screw has been loosened and tightened around 3 times.

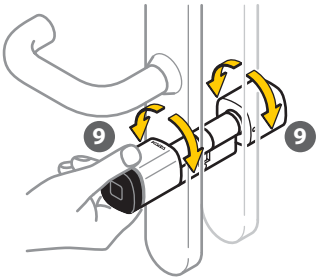
7. Tighten the screw using the hexagonal key.



8. Tighten the forend locking stud.



9. Check that the door knobs function correctly. Both door knobs can be turned without touching the door furniture.
10. Check the backset. The door knobs must not knock against the door frame.
11. Insert the battery. See page 25.



5.5 Installation variant B

NOTICE

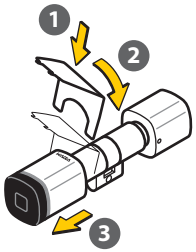
Always install the digital cylinder when the door is open. This prevents lock-out in the case of self-locking locks.

NOTICE

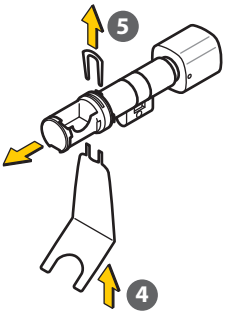
Danger for electronic components due to electrostatic discharge.

Installation B from the inner side of the door

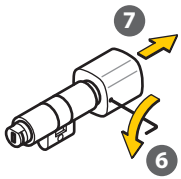
1. Position the service tool on the inner side of the outer door knob.
2. Turn the service tool clockwise and unlock the outer door knob.
3. Remove the outer door knob.



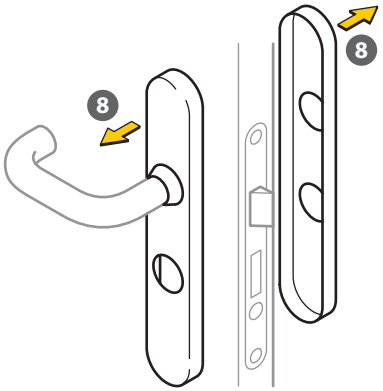
4. Attach the service tool to the securing shackle from below.
5. Push out the securing shackle and remove the door knob module.



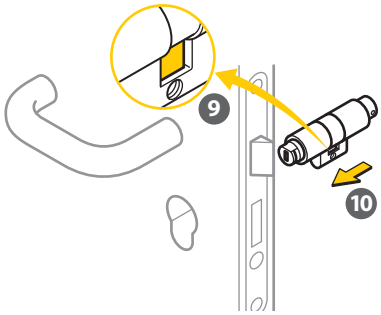
6. Using the hexagonal key, loosen the screw from the inner door knob.
7. Remove the inner door knob.



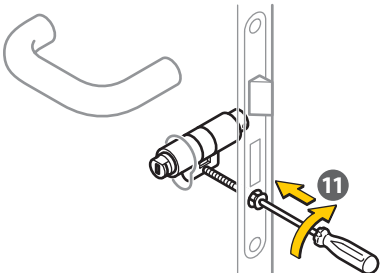
8. Remove the door furniture without profile cutout.



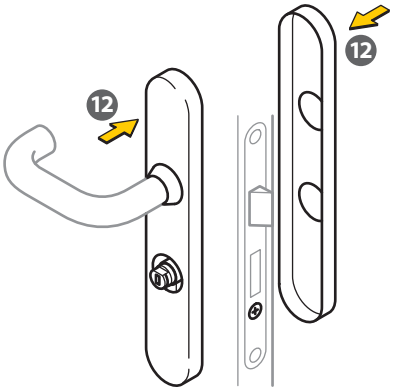
9. Align the cam flush with the cylinder-bar.
10. Push the cylinder housing through the lock from the inner side of the door.



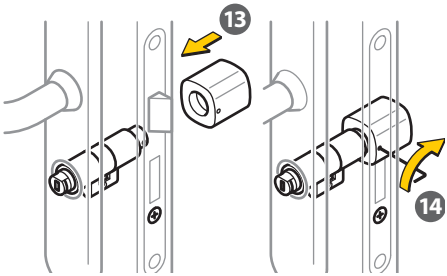
11. Position the forend locking stud in the lock and tighten it slightly.



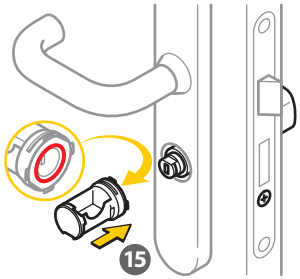
12. Assemble both items of door furniture.



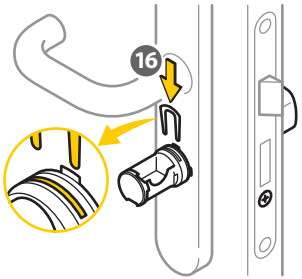
13. Push the inner door knob onto the cylinder housing.
14. Tighten the screw using the hexagonal key.



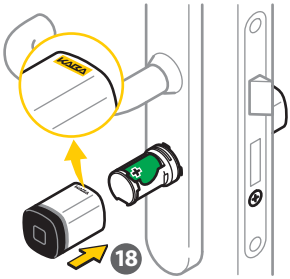
15. Check the position of the o-ring! Push the door knob module onto the cylinder housing, ensuring that the o-ring is not damaged in the process.



16. Push the securing shackle into the door knob module from above, to the end stop position. The door knob module and the cylinder housing are now firmly connected.

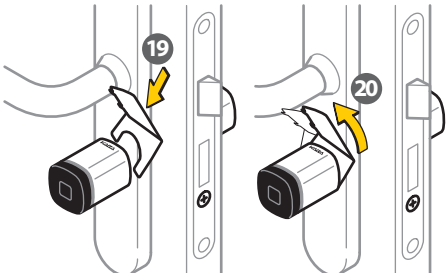


17. Insert the battery. See page 25.
18. Push the outer door knob over the door knob module.

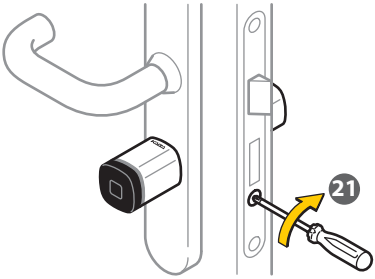


The outer door knob can only be attached in one position. The Kaba logo and the upper surface of the battery compartment must be on the same side.

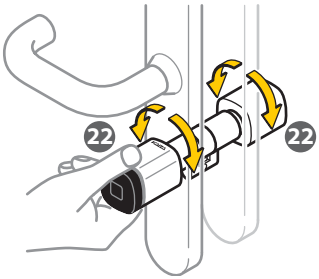
19. Attach the service tool to the outer door knob.
20. Rotate the service tool anticlockwise and lock it. The outer door knob and the cylinder housing are now firmly connected.



21. Tighten the forend locking stud.



22. Check that the door knobs function correctly. Both door knobs can be turned without touching the door furniture.
23. Check the backset. The door knobs must not knock against the door frame.



6 Commissioning

6.1 Inserting the battery

NOTICE

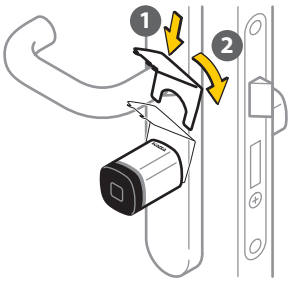
Always insert the battery when the door is open. This prevents lock-out in the case of self-locking locks.

NOTICE

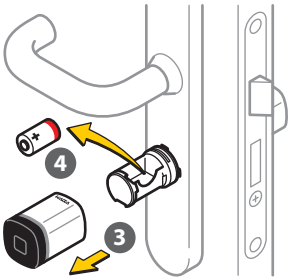
Danger for electronic components due to electrostatic discharge.

Disassemble the outer door knob

1. Position the service tool on the inner side of the outer door knob.
2. Turn the service tool clockwise and unlock the outer door knob.



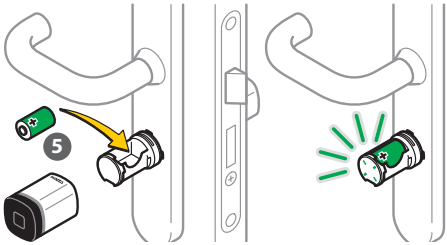
3. Remove the outer door knob.
4. Remove the existing used battery.



Inserting the battery

5. Take care to observe the polarity of the battery! Insert the new battery.

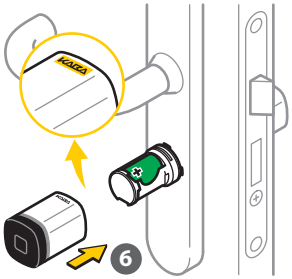
   Once the battery has been inserted, the LEDs glow green for a short time. This indicates that the self test has been successful.



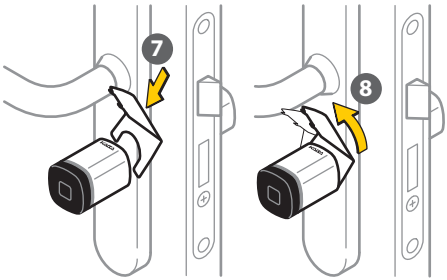
Assemble the outer door knob

The outer door knob can only be attached in one position. The Kaba logo and the upper surface of the battery compartment must be on the same side.

6. Push the outer door knob over the door knob module.



7. Attach the service tool to the outer door knob.
8. Turn the service tool anticlockwise and lock it. The outer door knob and the cylinder are now firmly connected.



9. Check that the digital cylinder functions correctly.

7 Programming

This section describes how to program the digital cylinders.

All digital cylinders must be programmed with the required access authorisations for the user media prior to first use and upon request. The access authorisations for user media can be transferred to the digital cylinders by various programming methods.

7.1 Manual programming with media

Neither a PC nor programming units are required for this type of programming. The digital cylinders can be individually programmed with the media on site, in a manual process, using the programming master media. It is not possible to program time functions with this type of programming.

7.1.1 Programming master media

With the A and B programming master media, the actuators are programmed directly. The B programming masters are organised under an A programming master. The programming masters do not have any access authorisations.

7.1.2 User media

The user media are organised under a B programming master.

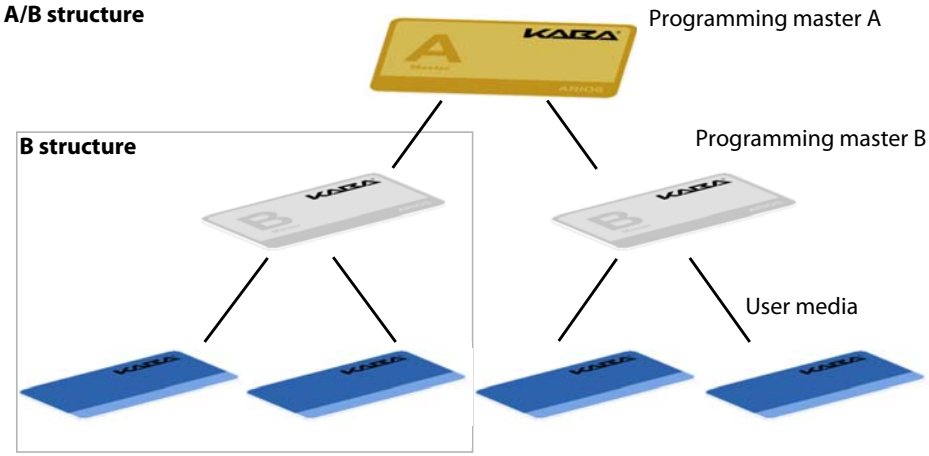
7.2 Programming structures

The digital cylinders can be organised manually in an A/B structure or a B structure. In an A/B structure, up to 200 B programming masters can be created with one A programming master. The user media cannot be directly programmed in an A structure.

With each B programming master, separate access authorisations can be granted to user media. A user medium can be programmed with various B programming masters, but not with the same digital cylinder.

Up to 4000 user media can be programmed for each digital cylinder. These can be distributed across the various B programming masters as wished. For example, a B1 programming master only manages 50 users whilst another programming master, B2, manages up to 3950 users.

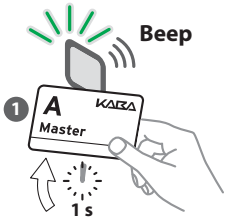
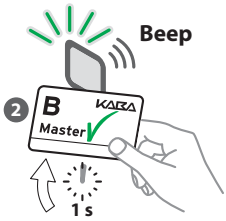
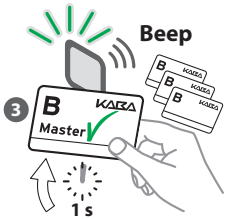
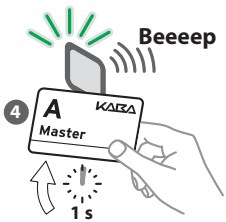
7.2.1 Programming A/B and B structures



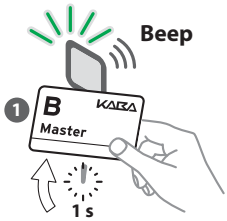
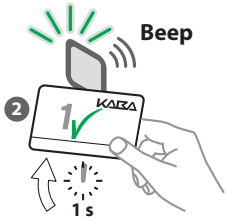
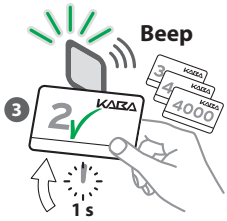
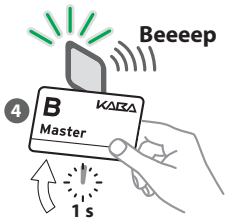
Acoustic signals (beep) and optical displays (lights) are emitted when a medium is detected by the antenna of a digital cylinder. In this case, the light ring glows green or red for as long as the medium is located within the antenna field and is detected.

In some situations, it is first necessary to switch on the acoustic signals using the programmer. Please refer to the user manual for the programmer for details on how to implement this setting.

Programming A/B and B structures

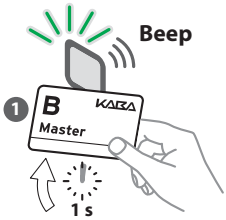
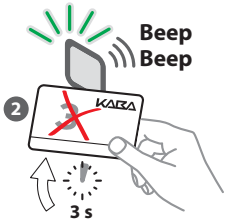
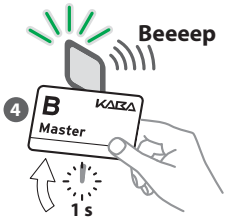
	Action	Confirmation
Launch programming mode		
1. Hold the A programming master medium in front of the outer door knob for approx. 1 s		 1 x short
Programming B programming master		
2. Hold the B programming master medium in front of the outer door knob for approx. 1 s		 1 x short
3. Hold further B programming master media in front of the outer door knob for approx. 1 s		 1 x short
End of programming mode		
4. Hold the A programming master medium in front of the outer door knob for approx. 1 s If no programming master medium is help up within 10 seconds, programming mode		 1 x long

Programming the user media

	Action	Confirmation
Launch programming mode		
5. Hold the B programming master medium in front of the outer door knob for approx. 1 s		 1 x short
Programming user media		
6. Hold user medium in front of outer door knob for approx. 1 s		 1 x short
7. Hold further user media in front of outer door knob for approx. 1 s		 1 x short
End of programming mode		
8. Hold the B programming master medium in front of the outer door knob for approx. 1 s (programming mode ends automatically after 10 s.)		 1 x long

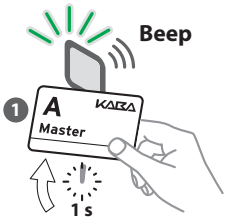
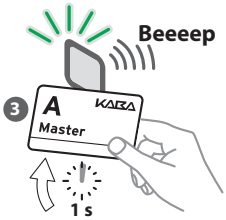
7.2.2 Deleting programmed media

Deleting individual user media

	Action	Confirmation
Launch programming mode		
1. Hold the B programming master medium in front of the outer door knob for approx. 1 s		 1 x short
Deleting user media		
2. Hold user medium in front of outer door knob for approx. 3 s		 2 x short
End of programming mode		
3. Hold the B programming master medium in front of the outer door knob for approx. 1 s (programming mode ends automatically after 10 s.)		 1 x long

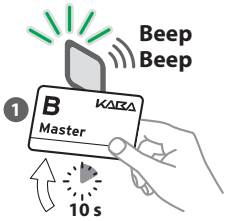
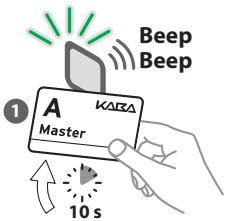
Deleting a B programming master

All user media from the B programming master media will be deleted.

	Action	Confirmation
Launch programming mode		
1. Hold the A programming master medium in front of the outer door knob for approx. 1 s		 1 x short
Deleting B programming masters		
2. Hold the B programming master medium in front of the outer door knob for approx. 3 s		 2 x short
End of programming mode		
3. Hold the A programming master medium in front of the outer door knob for approx. 1 s (programming mode ends automatically after 10 s.)		 1 x long

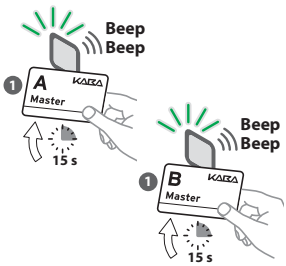
Delete all user media

All B programming master media and all user media from the programming master will be deleted. The traceback will not be deleted.

	Action	Confirmation
Programming master B		
1. Hold the B programming master medium in front of the outer door knob for approx. 10 s		 2 x short
Programming master A		
1. Hold the A programming master medium in front of the outer door knob for approx. 10 s		 2 x short

7.2.3 Restore factory settings

All programming master media and user media will be deleted. The traceback will be deleted.

	Action	Confirmation
Restore factory settings		
1. With an A/B structure, hold the A programming master medium in front of the outer door knob for approx. 15 s, or for a B structure, do the same with the B programming master medium.		 2 x short

7.3 Programming with programmer and software

Using the Kaba evolo manager software, all access authorisations can be allocated clearly on the computer screen. Subsequently, the data from the software must be downloaded to the programmer. From the programmer, the data must then be transferred to the digital cylinders.

7.3.1 Programming with the programmer

The programmer can be used to modify the following properties:

- Setting the clock
- Beep tone
- Light signal
- Opening times
- INI reset

Main functions
The two main functions that can be executed on the digital cylinders using the programmer are write (**export**) and read (**import**) data. These functions always require a valid programming master.
Data can be exported and imported wirelessly using the programmer, via the radio interface or using the programming cable.

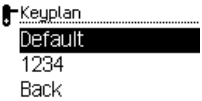
Export to digital cylinder
In the case of export, the configuration data from the programmer are written to the digital cylinder.

For export, the configuration data for the key plans must first be transferred from the software onto the programmer.

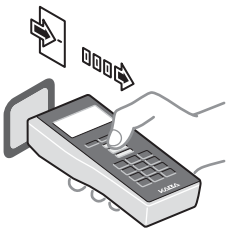
The configuration data should be selected from a list in the programmer and exported to a digital cylinder.

1. Press Export menu key.

2. Log in to the digital cylinder using the programming master.
3. Select the key plan and confirm this with the ENTER key.
4. Confirm with "Next".



Import to digital cylinder
In the case of import, the programmer reads the configuration data from the digital cylinders.



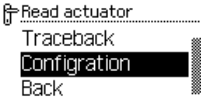
There are 3 different data types available for selection in the Import menu:

- Info (Status data)
- Traceback
- Configuration.

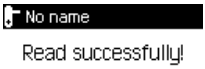
The existing configuration data for the digital cylinders stored on the programmer will be overwritten following confirmation.

1. Press Import menu key.

2. Log in to the digital cylinder using the programming master.
3. Select the Configuration menu and confirm this with the ENTER key.



4. The configuration of the digital cylinder will be read out and confirmed.



The Traceback and configuration need to be transferred into higher level software for processing.

8 Maintenance and fault rectification

8.1 Maintenance

The mechanical and electronic components of the digital cylinders do not require any maintenance.

NOTICE

Do not oil the digital cylinders!

8.1.1 Replacing the battery

Whilst the battery is being changed, all the data (access authorisations, configurations and traceback) are saved in the memory that is independent of the battery. The clock settings are lost after approximately 45 seconds.

When the digital cylinder indicates that the battery charge is low, the battery must be replaced without delay. Keep a new battery ready. See page 25.

8.1.2 Setting the clock

A programming device is necessary to set and check the clock in the digital cylinders. Always check the time after replacing the battery, or at least once a year. The separate user manual for the programmer contains a detailed description. For correct time function within a CardLink authorisation, the clock must be set correctly.

8.1.3 Reading out traceback

Using the programmer, the traceback (event list) of the last 2000 events can be read out, as long as the function has not previously been deactivated in the software KEM.

See user manual for programmer.

The system description for Kaba evolo lists the events and data that will be registered in the traceback ring memory.

8.1.4 Emergency opening

If all alarm messages have been ignored, up to the point where the batteries are completely discharged, it will no longer be possible to operate the digital cylinders.

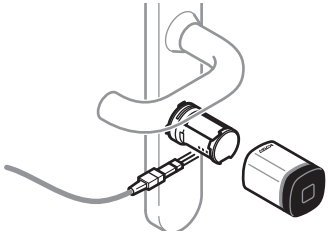
Emergency opening with a new battery

In this case, insert a new battery. See page 25.

Emergency opening with the Kaba programmer 1460

Emergency opening can also be executed using the programmer.

1. Remove outer door knob.
2. Connect the programming cable.
3. Open using the programmer.
4. Set the clock using the programmer.

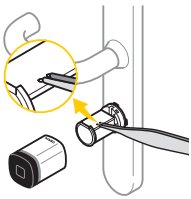


For access authorisations with time settings and CardLink, always set the clock precisely after emergency opening.

The separate user manual for the programmer contains a detailed description of emergency opening.

8.1.5 INI reset

INI reset can be used to restore the factory settings for the digital cylinders. The following options are available for this:

	Action	Confirmation
Programming master media An INI reset is carried out if the specific programming master medium is presented to a digital cylinder for at least 15 seconds.		 after 3 s 2 x short
Kaba Programmer 1460 with valid programming master medium The programmer can also be used to implement an INI reset. The valid programming master medium is also required for this variant. The separate user manual for the programmer contains a detailed description of INI reset.		 2 x short
Tweezers with valid medium The digital cylinders have INI reset contacts. A valid medium is also required for this variant. 1. Remove the outer door knob. 2. Rotate module so that the contacts (on the back) become visible. 3. Provide the applicable medium. 4. Within 3 seconds, short circuit the INI reset contacts with an electrically-conductive pair of tweezers (3 seconds). The INI reset is implemented.		 after 3 s 2 x short

8.2 Cleaning

If unsuitable cleaning agents or methods are used, the surface may be damaged.

Clean the surface with a soft, damp cloth. Only disinfection agents that are explicitly formulated for cleaning delicate metal surfaces and plastics may be used.

8.3 Fault rectification

Symptoms	Acoustic signal	Optical signal	Possible cause	Measures
No optical or acoustic signals (mechatronics is functioning correctly).			Signals were deactivated with the programmer. Defect in electronics.	Check configuration with the programmer. Replace the door knob module.
No entry with medium authorised for entry	8 x short	8 x red	Mechatronic components are jamming	Check the function of the door knobs and the lock, replace digital cylinder if necessary.
No access in a CardLink authorisation	no	no	Clock not correctly	Check the digital cylinder's clock using the programmer.
Access in a CardLink authorisation	1 x long 1 x short 1 x long	1 x green	Failure of the clock	Check the digital cylinder's clock using the programmer.

9 Glossary

Logging in

Logging in authorises a programming master, so that settings on the digital cylinders can be changed.

Firmware update

A firmware update consists of updating the software on the actuators.

Kaba evolo manager

Kaba evolo manager is software to configure and manage various types of digital cylinders in one or more locking systems.

Configuring

Configuring is modifying settings in the digital cylinders.

Mechatronic components

The mechatronic components include digital cylinders, for example.

Opening times

The opening time for the digital cylinders can be selected with the programmer unit. The opening time in which a digital cylinder open is.

Programming master

Programming masters are media with a high level of authorisation, used to program lower-ranking user media and modify the settings in digital cylinders.

Programming

Programming consists of transferring the configurations from the programmer to the digital cylinders.

Traceback

A traceback is an event log of all connections made, authorisations transferred, access attempts and successful accesses.